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YUGOSLAV RESEARCH ON PSITTACOSIS-ORNITHOSIS

By dr Andjelko Andjelovski

RESEARCH TO MAIN FILE

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# YUGOSLAV RESEARCH ON PSITTACOSIS-ORNITHOSIS

[Following is the translation of an article by Dr Andjelko Andjelovski in Galenika, Vol VII, No 1, Belgrade-Zemun, 1960, pages 21-22.]

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Until recently, psittacosis-ornithosis has been an unusual and rare disease, unknown in Yugoslavia. In recent years reports of instances of the disease have been occurring with increasing frequency. With the adoption of new laboratory techniques -- complement-fixation tests -- we have become aware that it is not as rare as we believed it to be, and that we must keep it in mind in the differential diagnosis of atypical pneumonias, primary infections, and specific infiltrates. For this reason I believe it to be quite appropriate to present for the general practitioners, hospital physicians, and the dispensaries, a brief outline of the clinical picture of the disease.

Today psittacosis-ornithosis are believed to be two separate diseases: psittacosis, which affects parrots and is transmitted from them to man, and ornithosis, which afflicts other birds. Mayer has found over 50 varieties of birds susceptible to ornithosis and capable of transmitting the disease to man.

Birds capable of transmitting ornithosis to man include ducks, turkeys, chickens, pigeons, as well as canaries, sparrows, titmice, and others.

The casual agent of psittacosis-ornithosis was discovered by Levinthal, Bedson, Bland, et al, during the period 1929-30, when an epidemic occurred in America and some European countries. The authors found the cause to be a virus, one of the largest among viruses, visible under the ordinary microscope. Due to the fact that cultures isolated from parrots differ in pathogenesis from cultures of the virus ornithosis. The authors believe there are two related, but different viruses: the virus of psittacosis and the virus of ornithosis.

The main symptoms of the disease in parrots and other birds are localized in the digestive tract, in the form of severe and fatal diarrhea. In man the disease is chiefly localized in the respiratory tract in the form of interstitial pneumonia, which does not differ essentially from the rest of the atypical pneumonias. The process is localized in the interalveolar septa of the connective tissue of the lungs. In the alveolar exudate are found lymphocytes, macrophages and desquamate alveolar epithelium with some fibrin.

Lepine and Falle distinguish three main clinical forms: a) influenza-like, b) pneumonia-like, and c) typhoid-like forms.

The incubation period lasts from 8-10 days up to 3 weeks, more rarely only four days, without any signs of disease.

a) The influenza-like form is the most benign and passes with the common symptoms of temperature, enervation, headache, and slight cough. These symptoms gradually disappear over a period of 1-2 weeks and the patient recovers rapidly.

b) The pneumonia-like form occurs most frequently and is of greatest interest to us, due to the fact that there exist at present a large number of viral atypical pneumonias, among which this disease is to be included. It is of particular interest to us in Southern Banat, where suitable conditions for the disease are prevalent, and where we have discovered three cases of psittacosis-ornithosis in our hospital during the period 1958-59.

The illness usually has a rapid onset, with high temperatures and a persistent dry cough. Expectoration is very slight; occasionally there may appear hemorrhagic sputum. Clinical findings on the lungs are scant; auscultation may reveal rare moist rustlings, or some crepitation. X-ray may show limited shadows on one or both sides, which remain for a very long period after fall of temperature and disappearance of the remaining symptoms. The infiltrates begin around the hilum and spread fanlike toward the periphery, resembling tubercular infiltrates. The spleen is rarely palpable; hematology reveals a normal or decreased leucocyte count, occasionally there is distinct leucocytosis.

c) The typhoid form is both the most severe and the rarest. This form usually begins gradually with a poor general condition, leucopenia, soft spleen, and roseola. Sometimes it is accompanied by diarrhea, thus giving a true picture of abdominal typhoid. This form is usually accompanied by pneumonia, the clinical and X-ray examination of which presents the signs of diffuse pneumonia. It is often complicated by thrombophlebitis and emboli in the pulmonary artery. Relapses are frequent; the fatality rate is between 20 and 40 percent.

The diagnosis of psittacosis-ornithosis is based on clinical findings, epidemiological surveys, and serological examination of the blood. Influenza-like and typhoid forms can be diagnosed only with the aid of laboratory techniques. Reaction to the complement-fixation test in the serum of the patient amounting to over 1:16 is regarded as positive.

The therapy for psittacosis-ornithosis is both symptomatic and anti-biotic. Streptomycin and sulfanilamide showed no effect in the treatment of this disease. Opinion is divided as regards penicillin: it is believed that large doses of penicillin, up to 200,000 units daily, have a beneficial effect. Good results have been obtained with wide-spectrum antibiotics: terramycin, aureomycin and sigmamycin, in the usual dosages of 2-3 grams. In the treatment of our cases, we have achieved favorable results with ambramycin and chloramphenicol. It is important, however, that antibiotics of the wider spectrum be given over a longer period of time, due to the possibility of relapse. This form of therapy markedly improves the prognosis of the disease.